PART I - GENERAL

A PROCUREMENT POLICY

Convair desires to procure engineering from Wesmont Manufacturing Company, for the Model 22 Electronic Rack to the maximum degree possible.

B TASK DESCRIPTION

In general, Wesmont shall complete "original design" consisting of system detail design, incorporation of all outstanding ECR's 22-5R, 7R, 16R, 18R, 18RA, 19R, 21R, 22R, 23R, 28R, as directed by Convair Engineering.

Wesmont shall accomplish purchased part specification writing and release, purchased part selection and procurement of hardware for the required racks as approved by Convair. This task is defined in more detail in Convair Report #22-03401F.

C COORDINATION

Convair and Wesmont shall each appoint an Engineering Representative and an alternate to coordinate their respective engineering responsibilities. It shall be the responsibilities of these people to define and implement the necessary activities within their respective engineering departments. Convair and Wesmont shall each advise the other in writing of the names of their Engineering Representatives.

D ENGINEERING CHANGE REQUESTS

Whenever there is a significant change of engineering task, Wesmont shall be given a Convair Engineering Change Request (ECR). Wesmont shall prepare an Engineering direct labor hour cost estimate, and upon approval by Convair Engineering and the Subcontract Buyer, shall proceed with the engineering task.

E ENGINEERING SCHEDULE

Convair and Wesmont shall jointly develop a list of engineering information required and the applicable need dates. This list shall be kept current. Wesmont shall set up engineering schedules to support the contract delivery of flight hardware and keep Convair advised of action required of Convair in conformance therewith.

PART I - GENERAL (continued)

F PROGRESS REPORTS

Wesmont shall report itemized engineering progress to the Convair Subcontract Buyer at two week intervals. These written reports shall include a specific reason for each item off schedule and the action Wesmont is taking to fulfill schedule requirements. Where Convair action is required to assist Wesmont, the nature of this assist shall be so stated by Wesmont. Copies of these reports shall be provided to the Convair Engineering Representative. The format for the reports is subject to Convair approval.

G CONVAIR APPROVALS

Wherever possible, Convair desires to handle its approvals at Convair, San Diego. Convair will approve or mark up engineering drawings within one (1) week of receipt from Wesmont. Wesmont has the basic responsibility of obtaining Convair sign-off on drawings, EO's and specifications.

H CONVAIR-CUSTOMER APPROVALS

Convair shall notify Wesmont as to parts and equipment requiring customer approval. Wesmont shall transmit to the Electronic Design Group the data article packages requiring customer review. Convair shall inform Wesmont of action to be taken, not later than 30 days of receipt of each data article package.

I DATA TRANSMITTAL

CONVAIR-WESMONT - The Engineering Shipment Notice (ESN) shall be the transmittal medium for all written engineering instructions, engineering data and engineering material from Convair to Wesmont. ESN's will be addressed to the Wesmont Engineering Representative, but will be hand delivered at Wesmont whenever possible. Upon receipt, the Wesmont Engineering Representative shall sign the original ESN and return to the Convair Engineering Representative. A copy of the ESN shall be sent by the Convair Engineering Representative to the Convair Buyer.

WESMONT-CONVAIR - All Engineering data to Convair by Wesmont shall be delivered to the Convair Engineering Representative, accompanied by a shipping notice. Wesmont shall send a copy of each such shipping notice to the cognizant Convair Buyers.

J ENGINEERING RELEASE

Convair will release all engineering, prepared by Wesmont, into the Convair Engineering Release System. This will require Wesmont to provide Convair with reproducibles of all engineering upon release by Wesmont. Upon receipt of Wesmont reproducibles to Convair format, the Electronics Design Group will obtain required Convair final approval signatures, record and forward with drawing release work sheet to the Engineering Release Group. Wesmont will make original release at their facility, assigning Convair drawing numbers from a block of numbers reserved for Wesmont use. Wesmont shall also assign dash numbers and change letters. Temporary Variation Authority (TVA) forms will not be used. Upon completion of delivery of the first shipment of qualified racks, the originals of all engineering data shall be subject to further negotiation as to disposition and maintenance.

PART I - GENERAL (continued)

K CONVAIR FURNISHED MATERIAL

Convair will furnish Wesmont with reasonable quantities of the Drafting Room Manual, Design Manual, Material Manual, D.I.B.'s, basic airplane model specifications excerpts and similar data required to guide Wesmont in the preparation of engineering data to the Convair format. Convair will also furnish Wesmont with the necessary printed vellums, EO masters and similar forms.

L DESIGN DISPUTES

When Wesmont and Convair Representatives, at any echelon of responsibility, reach an impasse on a matter of engineering, each person shall so advise his immediate superior. This next higher echelon shall effect a resolution or advise their superiors. This progressive passing of resolution to higher authority shall continue until agreement is reached or the cognizant Convair Assistant Chief Design Engineer makes a decision which shall be accepted by Wesmont as binding. The lack of agreement shall not be an acceptable reason for re-scheduling.

PART II - ENGINEERING

A GENERAL ARRANGEMENT DRAWINGS

Convair will provide approximately 65% of the design and preliminary general arrangement drawings. Convair will prepare electronic rack installation drawings. Convair will prepare and maintain space control drawings and all other general arrangement drawings.

B BASIC LINES

If required, Convair will provide the basic aircraft loft lines. Wesmont will make station cuts as needed.

C DESIGN LAYOUTS

Each design layout shall show drawing number and shall be approved by Convair Electronic Design Group and Structures Group.

D PRODUCTION DRAWINGS

Production drawings are to be prepared at Wesmont from approved layouts and Convair supplied engineering design data. These drawings shall be to Convair format and follow Convair practices throughout. Convair standards shall be used and Part Control Number (PCN) drawings shall be prepared by Wesmont for all outside purchased (OSP) items as required. All Wesmont drawings shall have the Wesmont name noted on the lower right hand margin. Convair will furnish PCN numbers at the request of Wesmont. All purchased items shall bear PCN numbers.

PART II - ENGINEERING (continued)

E DRAWING CHECKING

Wesmont shall check all drawings and sign-off in accordance with Part I-H above.

F STRUCTURAL DATA

Convair will provide basic loads, stress allowables, external loads and other dynamics design data as indicated in Convair Report 22.03401F. Wesmont shall conduct detail stress and dynamic analyses in accordance with Convair standard practice and applicable specifications and regulations. Wesmont shall furnish to Convair Engineering for approval, and at the time of drawing release, reproducibles of all design & stress and dynamics analyses made. Wesmont shall accept responsibility for the accuracy and completeness of all design stress and dynamics work performed by Wesmont and its vendors.

G WEIGHT CONTROL

Convair has provided Wesmont with a weight bogey of 183# and c.g. location, (Ref. Specification 22-03401). Wesmont shall exercise weight and balance control to keep within the limits prescribed.

H LOFTING

except as noted in Part II-B above, Wesmont is to perform all production lofting required in general accordance with Convair practices and procedures as defined in the data covered in Part I-L above.

I HANDBOOK DATA

Wesmont shall provide data as required by Convair for preparation of handbooks. Wesmont will not be required to prepare any text copy to be used directly in the handbooks.

J DESIGN EXAMINATION OF VENDOR ITEMS

It shall be the policy for Convair and Wesmont to jointly examine design layouts, detail drawings and one early unit of each component purchased by Wesmont to Specification-Control Drawings or Procurement Specifications. These examinations shall be conducted in accordance with established Convair procedures.

K VENDOR DATA

Wesmont shall obtain sufficient vendor data to permit Convair to perform engineering approval of equipment, preparation of handbooks and tool lists, parts provisioning, and similar functions. These data requirements are more fully outlined in Convair Vendor Data Articles entitled:

PART II - ENGINEERING

0 PROTOTYPE ELECTRONIC RACK (TWA) (continued)

2) Functional wiring of shelves "D" (P/N 22-32520) and "E" (P/N 32521) shall be modified to agree with functional circuity of engineering changes through ECR-28.

3) Functional circuity shall be tested in accordance with Convair standard practices for voltage breakdown, continuity and grounds.

4) Deficiencies items found from the quality control inspection shall be corrected as directed by the Convair resident engineer.

5) Modification type engineering drawings shall, for record purposes, be prepared by Wesmont for all changes incorporated.

6) All Wesmont modification type engineering drawings shall be approved by the Convair resident engineer.

d) Delete shelf "F" (P/N 22-32522) and fabricate an additional shelf "E" (P/N 22-32521) incorporating modification as required under (c).

e) OSP parts, as required, are to be procured by Wesmont for the additional shelf "E" (P/N 22-32521) as specified under (d).

f) Wesmont shall justify to Convair Engineering structural integrity of the rack by either stress analysis or proof tests.

PART II - ENGINEERING (continued)

K VENDOR DATA (continued)

"Article B - Commercial Data Article"
"Article E - Engineering Approval Article"
"Article G - Industry Developed Equipment Data Article (For Commercial Projects)"
"Article J - Installation Approval of Equipment - Commercial Projects"

L ENGINEERING TESTS

Production test procedure shall be submitted by Wesmont to the Convair Electronics Group for approval. Upon approval by Convair, Wesmont shall conduct production tests for conformance to applicable specification and approved test procedures. Qualification Tests for the rack shall be accomplished by Convair.

M SHOP LIAISON

Wesmont shall provide the necessary engineering liaison during the design, tooling and manufacturing phases of the program. Any authorization by Wesmont Engineering to deviate from drawings shall be reviewed and confirmed by Convair. Wesmont shall send such deviation information to Convair in accordance with Part I-J above.

N MODIFICATION

Engineering modification for the unqualified production racks shall be the responsibility of Wesmont.

O PROTOTYPE ELECTRONIC RACK (TWA)

To ensure availability and compatibility Wesmont Manufacturing Company shall modify the Right Hand TWA Prototype Electronic Rack for temporary installation during Engineering flight test of the #1 Production Airplane.

The modification task is to be accomplished as follows:

a) Present rack shall be inspected to determine the status relative to the latest engineering requirements.

b) Rack shall be inspected for quality control deficiencies.

c) Major assemblies of the rack consisting of Convair P/N's 22-32520, 22-32521, 22-32523 and 22-32524 shall be modified to properly mate between themselves, and accept the proper black box requirements configuration as shown on 22-32126, Sheet 2.

1) Structural changes of ECR-18 and -18R shall be incorporated as directed by the Convair resident engineer.